

Pub D1
circuitry for determining if said at least part of said information satisfies one or more conditions; and

circuitry for performing one or more actions in response to the determination that at least part of the information satisfies one or more conditions.

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22(Twice Amended). A functional circuit comprising:
an interconnect;
one or more modules connected to the interconnect; and
a monitoring circuit for monitoring information containing packets put onto the interconnect by one or more modules, said information-containing packets including packet routing information and said monitoring circuit comprising:
circuitry for determining if the information in a packet matches one or more conditions; and
circuitry for performing one or more actions if it is determined that information on the interconnect matches said one or more conditions.

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33(Twice Amended). A method comprising the steps of:
monitoring information containing packets on an interconnect, the information being put onto the interconnect by one or modules, said information-containing packets including packet routing information;
determining if the information on an interconnect satisfies one or more conditions; and
carrying out one or more actions if it is determined that the information containing packet satisfies one or more conditions.

34(Twice Amended). A circuit for monitoring packet information on an interconnect, said packet information including packet routing information and said packet information being put onto the interconnect by one or more modules connected to the interconnect, said circuit being arranged to determine if the information satisfies one or more conditions.

35(Twice Amended). A circuit for monitoring packet information on an

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interconnect, said packet information including packet routing information and said packet information being put onto the interconnect by one or more modules connected to the interconnect, said circuit being arranged to determine if the information satisfies one or more conditions and to select the information satisfying the one or more conditions.

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36(NEW). A circuit in a system comprising an interconnect and a plurality of modules connected to said interconnect for putting packet-format information onto the interconnect, wherein said interconnect is not a circuit-switched bus, wherein each packet comprises a number of fields containing information, including a routing field, an address field, a source field, a transaction type field, a transaction identifier field, and an operation code field, the circuit comprising:

circuitry for receiving at least part of said information from at least one of said fields;

circuitry for determining if said at least part of said information satisfies one or more conditions; and

circuitry for performing one or more actions in response to the determination that at least part of the information satisfies one or more conditions.

REMARKS/ARGUMENTS

Claims 1-35 remain in this application and claim 36 is added by this amendment. Claims 1, 22, 33, 34 and 35 are amended to more distinctly describe the subject matter of the invention. These amendments are intended to clarify the meaning of the term "packet", but are not intended to otherwise affect the scope of the subject matter being claimed. No new matter is added by these amendments and the amendments are not intended to affect the scope of the claims.

A. Rejections under 35 U.S.C. 102

Claims 1-6, 11-13, 15-18, 20-22 and 25-34 were rejected under 35 U.S.C. 102 as anticipated by Wolff et al. This rejection is respectfully traversed.

While it is appreciated that the Examiner must take the broadest reasonable

meaning for claim terminology when examining claims, it is respectfully believed that the interpretations being applied to reject the instant claims violate the accepted meanings for those terms. In particular, claims 1, 22, 33, 34 and 34 each call for, in varying language, packets of information. The Wolff et al. reference shows two parallel busses which deliver a “set” of signals. This set of signals would not be confused as a packet by anyone of skill in the art of data communication. This set of signals is akin to a circuit-switched connection in which a circuit connection is made between communicating ends of the bus. The signals in Wolff et al. are not transmitted as a unit as each member of the “set”, by design and necessity, travels on a separate signal line. Line noise, switching errors, voltage errors, and the like may affect one member of the set without impacting any other member of the set.

To apply another definition of the word “packet”, Newton’s Telecom Dictionary, 18th Edition (2002) describes the three principle elements of a “packet” as:

- 1) Header—control information such as synchronizing bits, address destination or target device, address of originating device, length of packet, etc.
- 2) Text or payload—the data to be transmitted....
- 3) Trailer—end of packet and error detection and correction bits.”

While it is believed that the term packet as used in the claims is clear and definite, in the spirit of cooperation claims 1, 22, and 33-35 have been amended to define a packet as containing packet routing information. Packet routing information, described generally at page 5 of the specification, is believed to be a particular type of information that does not appear in a bus-type interconnect of the Wolff reference. The set of signals in Wolff et al. is not routed—it is coupled end-to-end by the physical interconnect. The set of signals in Wolff et al. do not contain routing information as there is but one source and one destination possible. . The set of signals in Wolff et al. is not a unit of data, it is a collection of separate signals. Accordingly, Wolff et al. do not show a packet as called for in the claims. At least this feature of the independent claims is not shown or suggested in the Wolff et al. reference.

Using yet another definition from Newton's Telecom Dictionary, an "Information Packet" is defined as: "A bundle of data sent over a network. The protocol used determines the size and makeup of the packet." In Wolff et al, the size of the set of information is determined by the number of signal lines in the bus, and not by a protocol used. In contrast, the claims call for packets of information in the ordinary meaning of that term where the packet size is determined by a protocol choice, not a hardware limitation. The patent office itself recognizes in the Manual of Classification (see class 370/352, for example) that packet switching is a distinct, defined type of switching that is different from circuit switched type connections as shown in the applied reference.

Independent claims 1, 22, 33 and 34 call for, in varying language, monitoring packet information on an interconnect. Wolff et al. do not monitor information from the interconnect as that term is used in the instant application. The office action appears to dismiss this limitation of the claims by simply rebutting that this is merely a general allegation that the claims define a patentable invention. However, this is not merely a general allegation: specifically, the term "information" has specific, well-understood meaning that is different from what is taught in Wolff et al.

With respect to the term "information", it is respectfully believed that monitoring the value of a single signal line violates the commonly accepted meaning of the term information. For example, Merriam-Webster's online dictionary defines information as: "...the attribute inherent in and communicated by one of two or more alternative sequences or arrangements of something...". Wolff et al. merely compare two signal lines to see if they are the same, while being entirely unconcerned with the value of that signal line. So long as both signal lines are logic high or logic low, Wolff et al. will consider them a match. To consider the action of Wolff et al to be acting upon information violates the meaning of the word information.

Further, claims 1, 22, 33 and 34 call for a determination of whether the information in a packet satisfies one or more conditions. Because Wolff et al. compare a binary signal to another binary signal there is one and only one "condition" that can be satisfied. Specifically, Wolff et al. can only determine if the signals

match, and determine if any other condition is satisfied.

For at least these reasons, claims 1-6, 11-13, 15-18, 20-22 and 25-34 are believed to be allowable over Wolff et al.

B. Rejections under 35 U.S.C. 103

Claims 7-10 were rejected under 35 U.S.C. 103 as unpatentable over Wolff et al. in view of Cepulis et al. This rejection is respectfully traversed. Claims 7-10 depend from claim 1 and are believed to distinguish over Wolff et al. for at least the same reasons as claim 1. Cepulis et al do not supply the deficiencies noted above as, like Wolff et al., the reference does not contemplate packet interconnects.

Claim 14 was rejected under 35 U.S.C. 103 as unpatentable over Wolff et al. in view of Ardini, Jr. et al. This rejection is respectfully traversed. Claim 14 depends from claim 1 and is believed to distinguish over Wolff et al. for at least the same reasons as claim 1. The Ardini reference does not supply the deficiencies noted above as, like Wolff et al., the reference does not contemplate packet interconnects.

Claims 19 and 35 were rejected under 35 U.S.C. 103 as unpatentable over Wolff et al. in view of Pizzicia. This rejection is respectfully traversed. Claim 19 depends from claim 1 and is believed to distinguish over Wolff et al. for at least the same reasons as claim 1. Similarly, claim 35 calls for packet information including packet routing information and said packet information, which is not shown or suggested by Wolff et al. Pizzicia does not supply the deficiencies noted above as, like Wolff et al., the reference does not contemplate packet interconnects.

Claims 23 and 24 were rejected under 35 U.S.C. 103 as unpatentable over Wolff et al. in view of Bershteyn et al. This rejection is respectfully traversed. Claims 23 and 24 depend from claim 22 and are believed to distinguish over Wolff et al. for at least the same reasons as claim 22. Bershteyn et al. do not supply the deficiencies noted above as, like Wolff et al., the reference does not contemplate packet interconnects.